

REMARKS

This Amendment, submitted in response to the Office Action dated June 23, 2003, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 2-6, 8-16 and 18-41 are pending in the application. Claims 28-34 have been deemed allowable over the art of record but have been objected to for depending on rejected base claims. Claims 2-6, 8-16 and 18-27 have been rejected under 35 U.S.C. § 103 as being unpatentable over Takahara (previously of record) in view of Biegelsen et al. (U.S.P. 5,953,061). Applicant submits the following comments in traversal of the rejection.

The Biegelsen reference primarily relates to use of a ferroelectric gate transistor in connection with an image acquisition device, such as a scanner. In Biegelsen, a ferromagnetic FET and a normal FET are used per pixel. A pixel circuit is not composed of a single transistor in Biegelsen. "A single gate transistor" in the transistor 60 (Fig. 4) means that the transistor has a single gate. However, Figs. 3, 9 and 10 illustrate that two transistors are used in the pixel circuit (cf. members 52 and 54 in Fig. 9 and Fig. 10).

For example, Fig. 9 (column 8, line 53 to column 9, line 13) shows an embodiment in which a circuit shown in Fig. 3 is applied in a two-dimensional matrix circuit. That is, in order to turn "ON" the transistor 52, it is necessary for a voltage to be charged to the gate (which is connected to the line 20) of the transistor 54 for turning "ON" the transistor 54 while a voltage (which is higher than the gate threshold value of the transistor 52) is applied to the line 58 for turning "ON" the transistor 52. Therefore, in order to turn "ON" the transistor 52, the transistor 54 is necessary. Thus, the pixel circuit of Biegelsen is composed of two transistors 52 and 54.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/161,699

By contrast, the pending independent claims 2, 4-6, 8, 10-11 describe a single ferroelectric gate field-effect transistor per pixel.

Takahara is related to a display device using conventional FET's. Takahara does not teach or suggest ferroelectric gate FET's. Takahara primarily teaches a PDLC (Polymer Dispersion Liquid Crystal). Takahara teaches a method for improving the contrast of an image on a display using the PDLC, in which the polymer dispersion liquid crystal is turned into the transmitting state so that high transmittance can be obtained even if the liquid crystal is thick.

Applicant adds claims 35-41 to describe the direct connection of the ferroelectric gate being connected to a first data line. Applicant submits that the disclosed structure in Biegelsen does not permit direct connection of the gate to a data line.

Applicant further submits that pending prior claim 27 already describes the direct gate connection and is patentable for the reasons set forth above. Notably, the Examiner has not specifically addressed the subject matter of claim 27 in the rejection.

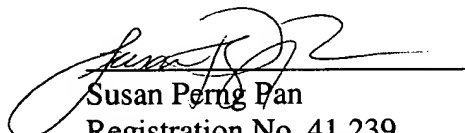
In view of the above, Applicant submits that claims 1-6, 8-16 and 18-41 are in condition for allowance. Therefore it is respectfully requested that the subject application be passed to issue at the earliest possible time. The Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/161,699

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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Date: October 23, 2003